Comment Sheet
CVP Cost Allocation Meeting of November 16, 2012

Name: Jerry Toenyes

Organization and Address: Northern California Power Agency, 651 Commerce Drive, Roseville, CA 95678

Phone: (916) 781-4297
Email: Jerry.Toenyes@ncpa.com

Comments:

NCPA provides the following comments on the material presented at the November 16, 2012 meeting:

1. Use of the Plexos Model

Reclamation states that power benefits will be evaluated in terms of the value to the Western Interconnection or the California power grid using the Plexos model. There is no correlation between the Western Interconnection and the value CVP power customers get from CVP generation; the benefit of CVP generation does not comport to the marginal cost of CVP generation in WECC. The value of CVP generation to the California power grid directly corresponds to the CAISO market price. The project use and preference power customers located on the CAISO grid receive their hourly power allocation from Reclamation and Western and this energy is transferred (i.e. "imported" from the CAISO's perspective) into the CAISO Balancing Authority Area on an hourly basis. The CAISO pays the customers for the imported CVP power at a specific "Locational Marginal Price" ("LMP") at the point of transfer, currently at Captain Jack near the Oregon border. Moreover, the Western customers must then buy this power back from the CAISO at their Load Aggregation Point ("LAP") LMP, currently the PG&E LAP for most CAISO-based customers; there is no clearer illustration of the benefit provided by CVP generation than the net payment received by customers for CVP generation.

NCPA believes that the CAISO market should be the basis for any analysis done for CVP power benefits, as Reclamation is using to determine hydropower benefits in its Draft Economic Valuation Appendix / Shasta Lake Water Resources Investigation; http://www.usbr.gov/mp/slwri/docs/Appendices/MP700_SLWRI_039_AppxEcon.pdf. Reclamation has incorporated the user value method using market rates charged for power from the CAISO to determine the value of the hydropower output.

To ensure that the CAISO market price forecast that is used by this cost allocation study are accurate, a model should be developed that duplicates (i.e. back-cast) the CAISO market prices at relevant LMPs for the last two years to ensure this model accurately reflects that market. Assumptions for the price forecast of gas and any other variable affecting future market prices should then be incorporated into the CVP power benefit determination. Those assumptions need to be vetted with all cost allocation participants to ensure support for the power benefit analysis.

2. Power Benefits

In its proposed evaluation of power benefits, Reclamation has stated in public meetings that they will include historical power benefits if future estimated power benefits are less than the Single-Purpose Alternative (SPA) Costs. NCPA has several concerns with this approach.

The Bureau's intent to include historical power benefits if the estimated future power benefits are less than the Single-Purpose Alternative (SPA) Costs violates the SCRB Method, which states that the Justifiable Expenditure is the maximum amount of costs that can be allocated to a project purpose determined by the lesser of benefits or SPA costs for that purpose. Proposing to force power benefits to equal the SPA gives the impression of a deliberate attempt to over-inflate the power benefit analysis in favor of allocating more of the financial burden to power customers.

Another problem is there is no test to determine whether future power benefits, or any other project purpose benefit, are insufficient. The only relevant criterion is whether future project benefits are greater than the project costs. As already demonstrated with the flood control benefits, future project benefits should easily surpass the total project costs. If, for some inexplicable reason, future project benefits are less than the project cost, than Reclamation needs to provide a full explanation how operational changes over the last 30 years have made the Central Valley Project uneconomic.

3. Capacity Value

Reclamation was vague on whether it would assign a value for the capacity of the CVP generation facilities. Reclamation should conduct a briefing to fully explain whether to include or not include capacity value as part of the cost allocation.

If Reclamation does include capacity value, it must be mindful of the current definitions and restrictions upon capacity claims. Customers in the CAISO BA are subject to various "Resource Adequacy" ("RA") requirements. These RA requirements differ from the traditional utility practice of capacity procurement and valuation. First, not all generation facilities and/or power contracts qualify for RA; those that do not qualify are "valueless". Second, not all RA facilities/contracts are equal; there are Local RA and System RA requirements each with very different values. NCPA recommends that Reclamation work closely with Western SNR staff to assess the amount of capacity (i.e. MW) that is appropriate to "claim" for capacity value, and Reclamation must be careful in determining the value (i.e. $/MW-Yr) it assigns to such capacity based on the resource's eligibility to provide Local RA or System RA capacity. The total quantity of CVP generation capacity and value claimed on behalf of SNR's Full Load Service customers may be an appropriate proxy to build upon.

4. Hydrology

Reclamation did not discuss how the annual generation will be determined or projected into the future. This is a critical element in determining power benefits. CVP generation has decreased almost 20% in the last 30 years due to changes in operations to meet CVPIA mandates, biological opinions, water quality objectives, and other requirements. Reclamation listed future uncertainties that will further reduce generation and reshape the generation pattern, such as Delta Flow Criteria, new Federal and State mandates, and increased project use requirements, but did not state how these events will be incorporated into the CVP generation projections. NCPA recommends using the last 8 years of CVP generation to determine the base year for generation and then project how future operational changes will impact the base year. The CVP power resource has been optimized since 2005 and includes the

latest operational changes to meet the recent biological opinions, CVPIA changes, and Trinity River releases. This CVP generation projection should be made available to the cost allocation group as soon as practicable.

In addition to the total annual generation, Reclamation must carefully determine how water and subsequent electricity production is allocated across the hourly intervals of a year. Electricity is generally most valuable during high-demand time periods, whereas a significant proportion of annual electricity generation occurs during the Spring runoff periods and/or producing during times when wholesale electricity prices are generally low, including night time hours, weekends, and holidays. Reclamation must properly account for the various operational and environmental constraints; most importantly, Reclamation must properly model the run-of-river nature of the CVP system.

5. Renewable Generation Value

The State of California does not recognize large hydropower power as a renewable resource. The only two CVP hydropower plants that do qualify as renewable are Nimbus and Lewiston. Even then, a portion of that generation must meet project use requirements, which does not receive any renewable value for Nimbus and Lewiston generation. Any value associated with the portion of those plants being classified as renewable should be added to the annual power benefit determination. Such value must properly evaluate the evolving definition and classifications of what the State of California is defining as eligible renewable energy resources and electricity products. There are a number of criteria that individual facilities must satisfy to qualify as an eligible renewable energy resource. The "quality" of the renewable electricity is determined by a myriad of scheduling structure, contract details, and most importantly, whether the product includes delivery of Renewable Energy Credits ("RECs"). Only with a REC can one claim to possess renewable energy. The state has created Portfolio Content Categories ("PCC") to further delineate the quality of renewable energy products, and implicitly delineate the value of each PCC. There are 3 PCCs defined under state law and a fourth defined under draft regulations for ease of implementation. PCC 1 is the strictest definition that also has a specific minimum procurement requirement that increases over time. Conversely, PCC 3 includes unbundled RECs (i.e. RECs that do not have energy associated with them) but also serves as a "catch all" for any qualified renewable energy product that otherwise does not satisfy the criteria of PCC 1 or PCC2. PCC 3 has an explicit maximum usage limit that declines over time. At this time, it is unclear if the small hydro facilities of CVP will be eligible to use to satisfy California RPS compliance and into which PCC they will be classified, if any.

6. Greenhouse Gases

California has established a cap-and-trade program to aid the state's effort to reduce statewide greenhouse gases to 1990 levels by 2020. Under the program, emission allowances were provided at no cost to a number of electrical distribution utilities based on their expected generation portfolios, taking into account their resource types (i.e. hydroelectric vs. thermal vs. state-defined renewable, etc.). Allowances for fossil fuel generation were provided to a number of electrical distribution utilities and must be sold if they are not going to be used. Large hydropower is considered emission free and no allowances were provided for electrical distribution utilities' portfolios that consisted of CVP hydropower generation or any other carbon-free source. Without these allowances there is no greenhouse gas benefit for CVP facilities; the avoided cost has already been accounted for in the allocation allotments. In addition, even if allowances had been provided, Reclamation law would prevent the sale for resale of these allowances. The allocation of free allowances under the cap and

trade program expires in 2020, and even if there was greenhouse gas value for CVP generation it should not be used beyond that date.

7. CVPIA Costs

The Central Valley Project Improvement Act (CVPIA) contributions from power and water need to be treated as specific costs in the cost allocation process. These contributions are mandated requirements for receiving CVP power and water and need to be deducted as a specific cost before determining the remaining justifiable expenditure.